File

Kentucky

ABE - CAI

FINAL REPORT

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Introduction

In cooperation with an ongoing program in the elementary schools of Eastern Kentucky, a drill and practice program in arithmetic via computer has been in effect in Adult Basic Education classes during the second semester of the 1968-69 school year. The first class started operation on November 18, 1968 and other classes participated in varying degrees later until the termination of the program on May 23, 1969.

The adult element of the program, as originally visualized and planned, was scheduled to run for a longer time than what was actually realized with problem solving and logic lessons being included. These things did not materialize and the program has been curtailed in operation to a great extent as will be obvious in the remainder of this report.

Description of Program

A drill and practice program in arithmetic via Computer has been in effect in the Eastern Kentucky Area for a period of two years. This program comes from Stanford University's Institute for Mathematical Studies in the Social Sciences at Palo Alto, California. At Morehead State University, a PDP-8 Computer branches the program out to selected elementary schools in the area. The program is administered by Eastern Kentucky Educational Development Corporation, the applicant agency for Title III, ESEA, in Kentucky's Region VII.

Drill and practice lessons in arithmetic are presented to the student by means of a teletype terminal. The lessons are arranged in concept blocks, following as much as possible the development of concepts as introduced in the more popular texts. A teacher is free to rearrange the order of concept blocks if the sequence does not coincide with her manner of presentations. Blocks from other grade levels may be inserted if needed for rapid or slow learners.

Each concept block consists of seven lessons. The first lesson is a pretest composed of problems of different levels of difficulty on the concept. Based on the percent correct on this pretest, the computer automatically selects for each student one of five lessons, each of a different degree of difficulty, for the next lesson. This lesson begins a series of five drill and practice lessons on the concept in which the performance on each determines if the next lesson is of greater difficulty, the same difficulty or of less difficulty. The seventh lesson on the concept is a posttest composed of problems of the same level of difficulty as the pretest. Comparsion of pretest and posttest scores gives some indication of the benefit derived from the five drill and practice lessons.

Extent of Program in Adult Basic Education

The adult element of Computer Assisted Instruction was a time sharing arrangement with Eastern Kentucky Educational Development

Corporation (EKEDC). The program was contracted by EKEDC for a total of ten hours per day. Of this ten hours, eight hours (8:00 A.M. to 4:00 P.M.) were utilized by the elementary schools of the area, leaving two hours (6:00 P.M. to 8:00 P.M.) for use by other programs. Adult Education classes utilized these two hours. Four centers (See Appendix A) made use of these hours for varying lengths of time. The following table gives the total hours of operation for the four centers.

TABLE 1

HOURS OF OPERATING TIME BY MONTH IN ABE - CAI PROGRAM

Center	Nov.	Dec.	Jan.	Feb.	March	April	May	Total
Boyd County (Cannonsburg)						4	12	16
Floyd County (Prestonsburg)				18	15	18	18	69
Martin County (Inez)						8	27	35
Rowan County (Elliottville)	3	2	2	6	16	14	6	49
Totals	3	2	2	24	31	44	63	169

It will be noted that the Floyd County center had the most operating time. This can be explained by the fact that these classes were arranged to utilize the time five nights per week. The remaining three centers met only twice per week.

In addition to the evening program with the four centers, a "piggyback" terminal was utilized at Jackson, Kentucky in Breathitt County. This was an extra terminal contracted exclusively by the Appalachian Adult Basic Education Center for the full ten hours per day. Several different type groups were coded into this program and were scheduled throughout the day and evening hours. These groups ranged from the early elementary school level up through GED classes. This terminal gave very limited service due to technical difficulties with telephone lines and teletype terminals. As some of the groups had to be transported in, this resulted in severe problems and loss of time due to the uncertainty involved.

As can be noted from Table I, limited operation was experienced in the four evening centers also. Much of this loss of time in these centers as well as the full time one in Jackson was caused by difficulties at the California center. With all these difficulties, a goodly number of lessons were worked in the overall program. The last report received on number of lessons at the end of April showed a total of 1928. Interpolating this through the month of May with its increased number of hours due to the decrease in technical troubles would result in approximately 3074 lessons worked during the entire operation.

Inservice Activities

Teacher training in the adult element of the program was conducted primarily at the different centers. This training involved explanations

and demonstrations to both teachers and students in most cases. Meetings were held in all the participating centers.

Research Activities

The original research design had to be modified because of limited operation and unforseen circumstances. For example, at Jackson with the full time terminal the main ABE class was discontinued before the program got underway and the operation there was primarily with elementary and high school students with some small groups of vocational and GED classes. At Elliottville, only three students participated throughout the entire program. Two other centers, Cannonsburg and Inez, did not operate for a long enough period of time to gather any reliable data. The one center at Prestonsburg did get enough operation to provide data and the emphasis will be on this data.

The main thrust of the objectives of this program was to expose rural adults to this type instruction and gather feedback to determine what impact it has on attitudes and achievement. The data collected was relative to these two aspects and was in the form of attitude change and achievement gain.

Attitude

An attitude survey was formulated to administer before starting participation and again at the termination of the program. The survey instrument was made of statements designed to assess the opinion of persons concerning different teaching methods. Some of the statements

were made from comments made by participants in past Computer Assisted Instruction workshops. Others concerned education in general. Milton R. Rokeach's short form dogmatism scale was used as a form of validation for the attitude test. When the two were administered to a group of fifty subjects, the correlation was found to be -.21.

Although the usuable returns were very limited, enough were received to point up certain changes in some areas. Tables 2, 3, and 4 presents the responses by items to the 15 item instrument (See Appendix B). Table 2 gives the results considering only those adults for which both pre and post instruments were received. Table 3 gives the extra pre and post instruments for which the opposites were not received. Table 4 gives the combined totals. It will be noted that the changes are consistent in the three tables. Scores are determined by the number of "correct" responses as indicated on the instrument in Appendix B.

Only three items showed enough change to be worthy of comment. These items were numbers 2, 7, and 11. These will be considered one at a time with the possible implications.

Item 2: It is important that all students in a classroom work on exactly the same material at the same time.

Responses on this item changed from <u>disagreement</u> <u>to</u> <u>agreement</u> from pre-survey to post-survey. The statement was designed to determine attitudes toward individualization of instruction and the idea of a teacher having students working on different materials as determined by

TABLE 2

RESPONSES (BY ITEM) OF PARTICIPANTS WHO COMPLETED BOTH PRE AND POST ATTITUDE SURVEYS

Survey Items	Pretest "Correct" Responses	Pretest "Incorrect" Responses	Posttest "Correct" Responses	Posttest "Incorrect" Responses
1	10	2	10	2
2	11	1	5	7
3	12	0	12	0
4	2	10	3	9
5	9	3	8	4
6	11	1	12	0
7	8	4	3	9
8	1	11	2	10
9	10	2	9	3
10	12	0	12	0
11	12	0	6	5
12	12	0	10	1
13	12	0	12	0
14	12	0	11	1
15	12	0	12	0
Totals	146	34	127	51

TABLE 3

ADDITIONAL PRE-POST ATTITUDE SURVEY SCORES
OF PARTICIPANTS NOT COMPLETING BOTH

Survey Items	Pretest "Correct" Responses	Pretest "Incorrect" Responses	Posttest "Correct" Responses	Posttest "Incorrect" Responses
1	19	1	7	0
2	16	5	4	3
3	19	2	6	1
4	6	14	4	3
5	18	3	7	0
6	18	3	4	3
7	7	14	3	4
8	3	18	1	6
9	19	2	4	3
10	19	2	7	0
11	17	4	6	1
12	17	4	6	1
13	20	1	6	1
14	20	1	7	0
15	20	1	7	0
Totals	238	75	79	26

TABLE 4

TOTALS OF ATTITUDE SURVEY SCORES COMBINING TABLES 2 AND 3

Survey Items	Pretest "Correct" Responses	Pretest "Incorrect" Responses	Posttest "Correct" Responses	Posttest "Incorrect" Responses
1	29	3	17	2
2	27	6	9	10
3	27	2	18	1
4	8	24	7	12
5	27	6	15	4
6	29	4	16	3
7	15	18	6	13
8	4	29	3	18
9	29	4	13	6
10	31	2	19	0
11	29	4	12	6
12	29	4	17	2
13	32	1	18	1
14	32	1	18	1
15	32	1	19	0
Totals	378	109	207	69

the ability of each. On first thought, it might be assumed that the participants might tend to agree with the statement at first and as they were exposed to the individualization of instruction via the computer program would change their attitudes to disagreement. The fact that this did not happen would imply that the manner in which the Computer Assisted Instruction Program individualizes instruction was responsible for this change in the opposite direction. The drill and practice program in arithmetic is designed in a manner which allows a teacher to keep all the students on the same arithmetic concept with provisions being made for the range of ability within the concept. If the teacher conforms to this idea, the student would be working on the same concept at the same time and this would be in agreement with the statement made in Item 2.

Item 7: The noise from machinery, such as a computer terminal, might be disturbing to students.

Opinions on this statement changed to a marked degree from disagreement to agreement. On close examination of the statement, it would be interpreted as meaning either as disturbing to the student working on the terminal or to other students close by if the terminal were in a classroom. Whichever the case, indications are that after working on the terminals, the adults were more convinced that the noise from the terminals would be distracting. As the terminals in this program were mainly in makeshift places with no attention paid to sound absorbing booths or walls, this problem could be studied and remedied to some extent.

Item 11: Lessons on the computer terminal should provide a means of "catching up" for those working them.

Opinion on this item changed from practically complete agreement to mixed responses. On examination of the statement, it could not be determined precisely what the implications would be. Two possibilities present themselves. Participants could have had a misconception of what the program was designed to accomplish before participation, seeing it as a complete package of arithmetic instruction and later could have realized that it was a supplement to the regular classroom instruction. Another possibility would be disallusionment with the reality of Computer Assisted Instruction after a "halo" concept before working with the program.

One of the elements in the attitude survey concerned the change in students' attitude toward arithmetic. Items 5, 9, 10, and 14 of the attitude survey were used to assess this change with item 5 being most directly related to the change. It can be noted from Tables 2, 3, and 4 that there were no appreciable changes in attitude indicated by any of these items.

A community attitude study was conducted in the Elliottville Community among parents, teachers, and administrators. This survey was concerned primarily with attitudes toward the computer program in general. It was conducted in a somewhat informal manner and consisted of responses from 25 subjects chosen at random. According to this survey, the attitudes

were almost exclusively positive despite the amount of computer down time experienced. Responses from only one person could be determined as antagonistic toward the program.

In concluding the report on attitude, it might be fitting to include an unsolicited writeup from one of the Adult Basic Education Teachers who worked with the program. In this center, the program operated very little due to extraordinary problems and delays. Following is the report, verbatim, from the teacher.

> When school was resumed following the Christmas Holidays in January, I was informed that Computerized Assisted Instruction in Arithmetic would be available in January for the adult students. The computer had been installed and the only thing needed for us to begin was the numbers for each student who wanted to participate.
>
> Our attendance had been very low and one teacher was discontinued in January so I contacted each name on our list of enrollees to determine the interest in the computerized program for arithmetic. Upon the basis of this survey I compiled the list to send for our numbers. We sent for the numbers in January but did not receive a corrected list until May. However, we used the computer by getting a sample demonstration lesson two nights in April.
>
> The computer was in use during the month of May. All numbers did not respond but six students used the computer and enjoyed it tremendously. They learned to respond very quickly and it provided an excellent topic of discussion. Students who were poor in problem solving often proved to be quicker in responding to the computer.
>
> In addition, computerized arithmetic probably saved our Adult Education Program for this year. It stimulated interest at a time when our attendance was very low. It gave us an opportunity to make new contacts and caused students who had attended previously to take a renewed interest. Many of them returned for more guidance in special problems. We included a smattering of algebra and basic geometry in our classroom work.
>
> Naturally the frustration of disappointment caused several people to drop out again but as an aid to classroom teaching for adults I would say the computer is a marvelous thing. The most amazing response came from the students who were the lowest in achievement. Those who could solve problems on paper maintained that they perferred to do so. The ones who were slow in reasoning problems were challenged when they had to respond quickly.

> I consider it a privilege to work with the computerized unit. I hope my unfavorable response will not prevent us from participating next year. Thinking and planning ahead may eliminate many of the problems we encountered.

Although the overall attitude survey seemed to show no appreciable change, this in itself is encouraging when due consideration is given the disappointments experienced during the launching of the program. Requests for inclusion in any further programs of this nature have been expressed by those participating which is still further encouragement.

Achievement

Due to factors mentioned earlier in this report, the only significant amount of achievement data collected was from the Prestonsburg center. From this center, pretest and posttest data were collected for nineteen students who participated throughout the operation. Table 5 gives the achievement results as measured by the California Achievement Test. It will be noted that most of the students were operating at a relatively high level of proficiency in arithmetic for this program. However, the elements of the so-called "modern math," dealing with number structure and mathematics principles incorporated in the computer program, was considered a compensating factor in this respect.

The gain in achievement in Arithmetic Reasoning ranged from a low of -4 months to a high of 4 years 5 months. The median gain was 1 year 9 months.

TABLE 5

ARITHMETIC PRETEST AND POSTTEST ACHIEVEMENT SCORES FOR NINETEEN ABE - CAI STUDENTS FROM PRESTONSBURG PROGRAM

Name	Pretest			Posttest		
	Arith Reason	Arith Fund	Total Arith	Arith Reason	Arith Fund	Total Arith
Blair, Evelyn P.	11.4	9.6	10.5	12.3	11.7	12.0
Blair, Kathy K.	9.6	9.4	9.5	10.2	10.0	10.2
Cooley, Gay Nell	10.1	11.3	10.8	10.2	11.3	10.9
Freeman, Geraldine	8.8	6.9	7.5	10.2	9.6	9.9
George, Flossie	6.6	6.7	6.7	7.7	8.9	8.6
George, Peggy S.	9.1	9.8	9.4	12.0	13.0	12.5
Goble, Phyllis S.	10.1	11.3	10.8	12.6	13.0	12.7
Kestner, Leaince	7.2	7.1	7.0	11.4	10.0	10.8
McKenzie, Helen	9.1	9.3	9.2	11.7	11.7	11.8
McKenzie, James	7.7	7.4	7.5	10.8	10.9	11.0
Nelson, Mary	11.4	9.6	10.5	11.4	10.9	11.3
O'Bryan, Clarence	9.0	10.4	10.2	12.3	12.7	12.4
O'Bryan, Emma	10.1	9.4	9.7	11.4	12.6	11.9
Perry, Thelma	8.8	8.3	8.6	11.7	12.7	12.2
Preston, Ray T.	9.1	7.0	7.7	11.0	11.9	11.6
Shepherd, Eileen	8.1	7.6	7.8	10.4	9.9	10.2
Sloan, Trinnia	8.3	7.8	8.1	11.0	10.6	10.9
Stambaugh, Nancy	9.8	9.8	9.8	11.4	12.6	12.1
Watson, Brenda	10.6	9.3	9.9	10.2	9.4	9.8

The gain in achievement in Arithmetic Fundamentals ranged from a low of 0 months to a high of 4 years 9 months. The median gain in fundamentals was 2 years 3 months.

The gain in overall arithmetic achievement ranged from a low of -1 month to a high of 3 years 9 months. The median gain in overall achievement was 2 years 3 months.

Summary

The Computer Assisted Instruction program, was terminated by Eastern Kentucky Educational Development Corporation on May 23, 1969. This was approximately five weeks before the projected termination date for the summer. The most efficient period of operation of the program was during the latter part of April and the month of May. Up until that time the program was very erratic and participation was difficult.

During this period of smooth operation, there was a growing enthusiasm and satisfaction with the program on the part of the adult teachers and participants. It was felt that now that the pains of organization and technical difficulties were over, it was unfortunate to discontinue operation.

Investigations are underway to study the possibility of getting some kind of local operation which will furnish Computer Assisted Instruction to the Eastern Kentucky Area. The experience gained in this program in the overcoming of difficulties should make any new venture in this field go more smoothly. The interest that has been shown and the results experienced would seem to make further programs of this type worthwhile.

A P P E N D I X A

Participants In ABE-CAI By Centers

Breathitt County

1. Breathitt County High School had eleven students participating under the instruction of Mrs. Jewell Holbrook.

Betty Brown	Barbara Kaufman
Linda Brown	Molly Johnson
Ray Farler	Ricky Jones
Linda Gillium	Ethel Strong
Charles Hollan	Joe Taulbee
Deborah Hounshell	

2. Little Red Junior High School in Jackson had three small groups participating:

   a. Mrs. Rachel Deaton's sixth grade class:

      William Brewer
      Debbie Clemons
      Phillip Hollan
      Betty Jenkins
      Stanley Trent

   b. Mr. Wallace Smith's seventh grade class:

      Mickey Campbell
      Clarence Haddix
      Larry Jones
      Anthony Pennington
      Marlene Turner

   c. Mr. Burton Herald's eighth grade class:

      Gloria Bowling
      Larry Collins
      Pearl Farler
      Doug Fugate
      Larry Strong

3. Mr. Sam Herald had 17 students from the Vocational School participating:

Wayne Alsept
Jessie Barnett Jr.
Douglas Finley
Cora Fugate
Carl E. Gross
Clyde D. Gross
Judy A. Herald
Lloyd King
Ben Burton
Walter Fugate
Edward Gabbard
Connie Gillum
Manda Pennington
Jessie Spicer Jr.
Billy W. Stidham
Winfred Ray Taulbee
Barbara Wagers

4. Thirteen adults from GED classes participated with Mrs. Loredith Station as instructor.

Edna Anderson
Bobby Bates
Norman Bates
Viola Callahan
Martha Dooley
Denton Dunn
Karen Gross
Roland Mulcahy
Mae Nichol
Jean Riley
Roger Sallee
Jerry Sandlin
Ann Turner

5. Mrs. F. Johnson at LBJ Elementary School had eight students on the program.

Terry Anderson
George Fletcher
Noami Gillum
Terry Graham
Bess Gross
David Hagan
Nancy Little
Susan McClees

6. Nine students from the Neighborhood Youth Corps participated under the instruction of Mrs. M. Pence.

Chester Barnett
Carolyn Bowlin
Frank Cole
G.V. Johnson
Eddie Plummer
Charles Spencer
Mervin Spencer
Frank Thorpe
Charles Spicer

Boyd County

Twenty-four Adult Basic Education students at Cannonsburg registered for the program under the instruction of Mrs. Minnie Gee. Although few participated to any extent, the following are the ones registered.

Dorothy Artis
Mavis Bryant
Margaret Burchett
Warren Carter
Franklin Cole
Donna Collins
Stella Gilbert
Donald Hart
Richard Hart
Janice Hart
William Hicks
Mary James
Kenneth Lemaster
Joan McCarty
Everett Patrick
Martha McCormick
Paul McKenzie
Denver Mullins
Gladys Mullins
Ines Mullins
Medfor Mullins
Bobby Smith
Linda Smith
Marika Spaulding

Floyd County

A class in Prestonsburg under the supervision of Mr. Bobby Wells consisted of 28 adults at the beginning of the program. With the introduction of CAI, 53 adults were added making a total of 81 with several sections. These sections were rearranged so as to utilize the terminal time five nights per week instead of the two originally planned. Some spare day time hours were utilized as well by adults.

Although the total of 81 names are listed, many of these participated very little because of early shutdown of the program.

Milford Adams
Kathryn Adkins
Helen Arms
Joan Ball
Toy Blackburn
Jane Blackburn
Bradley Blackburn
Vivian Blackburn
Evelyn Blair
Kathy Blair
Cline Blankenship
Roger Blankenship
Valerie Brewer
Ballard Clark
Alice Clark
Hope Collett
John Cornette
Gay Cooley
John Derossett
Geraldine Freeman
Paul Garrett
Diana Garrett
Amos Garrett
Audrey Garrett
Betty Garrett
Flossie George
Peggy George
Phyllis Goble
Lou Greene
James Gunnells
Estill Gunnells
Johnny Gunnells
Don Hall
Iria Hamilton
Janie Holbrook
Carada Hunt
Norma Hunt
Jennifer Isaac
Eva Jarrell
Bethel Johnson
Betty Jones

Leanice Kestner
George Kidd
Lina Kidd
Margie Kidd
Pina Kidd
Bell Lewis
Melva Lewis
Helen McKenzie
James McKenzie
Nora Maynard
Louise Nelson
Clarence O'Bryan
Emma O'Bryan
Beatrice Patton
Thelma Perry
Jack Powers
Mary Powers
Ray Preston
James Price
Deloris Scalf
Angelo Shepherd
Eileen Shepherd
Ocie Shepherd
Albert Simpson
Larry Slone
Taylor Slone
Trinnea Slone
Donald Smith
Phyllis Smith
Eloise Spradlin
Nancy Stambaugh
Julia Stratton
J.T. Stratton
Lloyd Stratton
Mary Thompson
Everette Thompson
Miles Williams
Brenda Watson
Windell Watson
Callene Weddington

Martin County

The last adult class to be coded into the CAI Program was located in Inez. This class conisted of 11 adults and was supervised by Mrs. Virginia Hardin. Because of late organization and early termination of the program, these students participated a very short while.

Ernest Blackburn
Bobby Bowen
Cline Bowen
Flem Cook
Luthur Ednicutt
Ruth Fannin
Floyd Kirk
Floyd Mills
Willard Mollett
Gladys Moore
Bueford Setzer

Rowan County

A class of six adults at Elliottville under the supervision of Mr. Danny James participated in the program.

Jerry Bowling
Jimmy Dehart
Mearl Dillon
Emery Prunell
Connie Slone
Glennis Winkleman

APPENDIX B

ADULT STUDENT SURVEY

1. Name_____

2. In what year were you born?_____

3. Sex? (Check) Male____ Female_____

4. In what type of community were you reared? (Check one)

   ( ) Rural Farm
   ( ) Small Town (population under 1,000)
   ( ) Large Town (population 1,000 - 4,999)
   ( ) City (population of 5,000 or over)

5. Are you now employed? (Check) Yes____ No_____

6. What kind of work do you do?_____

7. How many school grades did you complete?_____

8. How long have you been participating in adult classes?_____

We would like to know how you feel about different teaching methods. This is not a test. You are simply expressing your opinion.

Place a check mark ( ) if you agree with the statement.
Place (X) if you disagree with the statement.

_____1. All a teacher needs to do an effective job in the classroom is a good textbook.

_____2. It is important that all students in a classroom work on exactly the same material at the same time.

_____3. There is a real danger that machines will replace teachers in the classroom.

_____4. Lessons coming from a computer terminal would make you try harder than work coming from a teacher.

_____5. Arithmetic is one of the most important subjects taught in school.

_____6. Teachers use too many "gimmicks" in the classroom of today.

_____ 7. The noise from machinery, such as a computer terminal might be disturbing to students.

_____ 8. Students will respond better to a teacher than to a machine.

_____ 9. It would be alright to let each student work at his own speed in arithmetic even if some were several lessons ahead of others.

_____10. The change to working at a computer terminal should be interesting for some of the arithmetic practice work.

_____11. Lessons on the computer terminal should provide a means of "catching up" for those working them.

_____12. It is a good idea to use computers in the classroom to help teach subjects such as arithmetic.

_____13. Working at a computer terminal should speed up your thinking.

_____14. Having a computer take over some of the arithmetic practice would help the teacher do a better job in teaching arithmetic.

_____15. Lessons on the computer terminal should be interesting to adults.

The follow ing is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1 = I AGREE A LITTLE

+2 = I AGREE ON THE WHOLE

+3 = I AGREE VERY MUCH

-1 = I DISAGREE A LITTLE

-2 = I DISAGREE ON THE WHOLE

-3 = I DISAGREE VERY MUCH

_____1. The United States and Russia have just about nothing in common.

_____2. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

_____3. Eventhough freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

_____4. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

_____5. Man on his own is a helpless and miserable creature.

_____6. Fundamentally, the world we live in is a pretty lonesome place.

_____7. Most people just don't give a "damn" for others.

_____8. I'd like it if I could find someone who would tell me how to solve my personal problems.

_____9. It is only natural for a person to be rather fearful of the future.

_____10. There is so much to be done and so little time to do it in.

_____11. Once I get wound up in a heated discussion I just can't stop.

_____12. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

_____13. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

_____14. It is better to be a dead hero than to be a live coward.

_____15. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

_____16. The main thing in life is for a person to want to do something important.

_____17. If given the chance I would do something of great benefit to the world.

_____18. In the history of mankind there have probably been just a handful of really great thinkers.

_____19. There are a number of people I have come to hate because of the things they stand for.

_____20. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

_____21. A man who does not believe in some great cause has not really lived.

_____22. Of all the different philosophies which exist in this world there is probably only one which is correct.

_____23. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.

_____24. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

_____25. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.

_____26. In times like these, a person must be pretty selfish if he considers primarily his own happiness.

_____27. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

_____28. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.

_____29. A group which tolerates too much differences of opinion among its own members cannot exist for long.

_____30. There are two kinds of people in this world: those who are for the truth and those who are against the truth.

_____31. My blood boils whenever a person stubbornly refuses to admit he's wrong.

_____32. A person who thinks primarily of his own happiness is beneath contempt.

_____33. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

_____34. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

_____35. It is often desirable to reserve judgement about what's going on until one has had a chance to hear the opinions of those one respects.

_____36. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.

_____37. The present is all too often full of unhappiness. It is only the future that counts.

_____38. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."

_____39. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.

_____40. Most people just don't know what's good for them.

Rokeach, Milton R., The Open and Closed Mind.